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## Comment Joshua Aizenman

The remarkable growth experience of Japan from the 1950s has led observers in the 1980s to credit Japan with finding a superior system to the U.S. capitalism, viewing Japan as the “rising sun” that will overtake the United States. Yet the stagflation of the 1990s abruptly put the end to these claims, inducing some policymakers in Japan to look for external scapegoats stopping Japan’s aspirations to regain its prominence. This interesting paper investigates the degree to which the deflation-stagflation decade of the 1990s in Japan was due to globalization and Chinese imports. After a careful investigation of these allegations, the authors unambiguously conclude that this was not the case.

### Chapter’s Investigation Strategy

The authors evaluate carefully the impact that Chinese exports have had on Japanese prices during 1992 to 2005, applying a methodology inspired by Feenstra (1994) and Broda and Weinstein (2006). They use a constant elasticity of substitution (CES) aggregator to infer the implied impact of new products and quality upgrade on the Japanese cost of living. Regressing the shares of products on the Harmonized System (HS) nine-digit year fixed effects, the residuals are interpreted as the impact of price-per-unit quality on the market share of that country. The outcome is remarkable: out of the 100 largest exporters to Japan, China exhibits the highest increase in market share due to quality-adjusted price movements.

The main results show that, while the official Japanese import price index has fallen over this period, an import price index computed, using the same methodology as the consumer price index, would have resulted in substantial *inflation* over this period. Given the large growth of varieties coming from China, the popular belief that China is exporting deflation may be driven by the constant introduction of cheap Chinese products in Japanese markets. Such new products would reduce the cost of living for consumers if the *price-per-unit quality* of the new product is *lower* than that of existing products, or if the new product is actually adding new valuable choices to the consumers. To clarify these issues, the authors use a CES aggregator to back out the

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implied impact of new products on the Japanese cost of living. The findings are remarkable—the price-per-unit quality of Chinese exports halved during this period due to quality upgrading. Yet the quantitative significance of quality growth was small—only 1 percent smaller than the actual import inflation over the 1992 to 2004 period. While the specific price impact of new products from China is small, the impact of all new and higher-quality imports can account for a fall in Japanese import prices of about 10 percent over the 1992 to 2004 period. Yet imports are only 10 percent of Japan's consumption; hence, the deflationary impact of new imported goods in Japan is small, about 1 percent.

### Comments

While the small gross domestic product (GDP) share of imports to Japan suggests that the impact of foreign prices on domestic inflation or deflation is small, the paper's methodology may also be useful in reviewing the experience of countries with greater import penetration, like Korea, whose imports are about 40 percent of its GDP, and its inflation is about 2 percent.

1. In reading the results, one should keep in mind that the CES aggregator applied in the paper may overstate the ultimate impact of variety or quality on Japan's prices and welfare, as some of the new varieties are not new: they were produced in Japan, but growing fragmentation may shift production to China and other countries. To illustrate this concern, the purchase of the personal computer (PC) unit of IBM by China's leading computer maker, Lenovo, in 2004, transformed a U.S. PC into a Chinese variety in a CES Armington aggregation. Yet a more plausible interpretation may view it as a reincarnation of an IBM PC, with limited impact on the spectrum of varieties consumed.<sup>1</sup> A similar concern arises in circumstances when, due to cost considerations, a Japanese producer (say Sony) licenses the production of a product (say TV) from Japan to China (or any other destination), and the licensed TV would be sold as a Chinese product. The new imported variety should be balanced by the "drop" in "Japanese" varieties.<sup>2</sup> In this situation, we may end up with no "new variety" or "better quality" effect. Yet welfare gain would arise from cheaper TV prices or Sony's higher profits.

2. Due to data limitations, the study relies on the available unit values instead of on the specification prices. Some argued that multinationals' activities may increase the gap between the two, due to transfer pricing and

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1. If one views the Lenovo PC as a perfect substitute for the IBM, one would record it as a drop in U.S. varieties, and a rise in Chinese varieties, with no significant impact on the consumer. If the two are viewed as imperfect substitutes, then there would be secondary effects determined by the substitutability of the disappearing IBM PC with the appearing Lenovo PC.

2. If the overall quality of the Chinese- and the Japanese-produced TV is similar, there would be no new varieties gains even if Sony were to keep some production of the TV in Japan.

other concerns.<sup>3</sup> This concern is relevant due to the sizable increase in Japanese foreign direct investment (FDI) in China from 2001, a sizeable portion of which may be of the vertical nature.

3. While the CES aggregator is a convenient structure, Hummels and Lugovskyy (2005) argue that a generalized version of Lancaster's "ideal variety" model can better match facts, where entry causes crowding in variety space, so that the marginal utility of new varieties falls as the market size grows. This crowding effect may be mitigated by income effects, as richer consumers will pay more for varieties closer matched to their ideal types.

## Conclusion

The authors convincingly showed that Japan's deflation is "domestically produced"—the impact of imported deflation is close to zero. Hence, the alleged "Chinese exported deflation" as the interpretation for the deflationary patterns in Japan over 1992 to 2004 is invalid. This result is reassuring, as we may expect that the impact of import prices on the Japanese Consumer Price Index (CPI) should be small as Japan is relatively closed to the import of goods. Furthermore, a country with an independent and competent central bank should be able to deal with challenges associated with import penetrations (see Jeanne and Svensson [2004] and Auerbach and Obstfeld [2003]). More important, the paper's methodology is very useful in understanding the experience of any country with greater import penetration.

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3. Eden and Rodriguez (2004) review the earlier debate over methods for calculating import price indexes, concluding that unit values were inferior to specification prices (Lipsey 1994; Feenstra and Shiells 1997). They argue that multinational enterprise activities strengthen the case for specification prices. A 10 percent increase in the intrafirm trade share of U.S. imports widens the gap between the specification price and unit value by 1.3 percent, with transfer price manipulation further increasing the gap.

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